

Title (en)  
GRAPHENE-BASED PRIMARY CHEMICAL CURRENT SOURCE

Title (de)  
PRIMÄRE CHEMISCHE STROMQUELLE AUF GRAPHENBASIS

Title (fr)  
SOURCE DE COURANT PRIMAIRE À BASE DE GRAPHÈNE

Publication  
**EP 3923386 A1 20211215 (EN)**

Application  
**EP 19914569 A 20191223**

Priority  
• RU 2019103623 A 20190208  
• RU 2019050254 W 20191223

Abstract (en)  
The invention relates to the field of electrical engineering. The primary chemical current source is a new class of non-rechargeable, energy-saturated chemical current sources based on graphene in the metal-oxidized carbon electrochemical system, in which a nanostructured material based on graphene-like materials is used as a current-forming component of the cathode, which has an increased discharge capacity due to the presence of various oxygen-containing functions, capable of forming irreversible compounds with ions of the active material of the anode (for example, lithium, sodium, magnesium, calcium, potassium) during the current-forming process (discharge). The technical result is an increase in the energy performance of the primary chemical current source.

IPC 8 full level  
**H01M 4/583** (2010.01); **H01M 6/14** (2006.01)

CPC (source: EP IL KR RU US)  
**H01M 4/583** (2013.01 - EP IL KR RU); **H01M 4/587** (2013.01 - US); **H01M 6/14** (2013.01 - IL RU); **H01M 6/16** (2013.01 - EP KR); **H01M 2004/021** (2013.01 - US); **H01M 2004/027** (2013.01 - US); **H01M 2300/0037** (2013.01 - KR)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3923386 A1 20211215**; **EP 3923386 A4 20221102**; CN 113519079 A 20211019; IL 285044 A 20210930; JP 2022519347 A 20220323; KR 20210108472 A 20210902; RU 2706015 C1 20191113; US 2022140344 A1 20220505; WO 2020162789 A1 20200813

DOCDB simple family (application)  
**EP 19914569 A 20191223**; CN 201980089168 A 20191223; IL 28504421 A 20210721; JP 2021543491 A 20191223; KR 20217024327 A 20191223; RU 2019050254 W 20191223; RU 2019103623 A 20190208; US 201917424754 A 20191223